

Missouri's Air Quality

Two exceptions to good air quality in Missouri are the St. Louis area during the summer and one spot in eastern Missouri. The St. Louis area has repeatedly exceeded the **ozone** standard and is designated by the U.S. Environmental Protection Agency (EPA) as a moderate-level **nonattainment area** for **ozone**. This area includes the city of St. Louis and Franklin, Jefferson, St. Charles and St. Louis counties (see Page 17), as well as Madison, Monroe and St. Clair counties in Illinois. A small area near a **lead smelter** in

Jefferson County still exceeds federal standards for **lead** (see Page 22).

Air Quality Trends

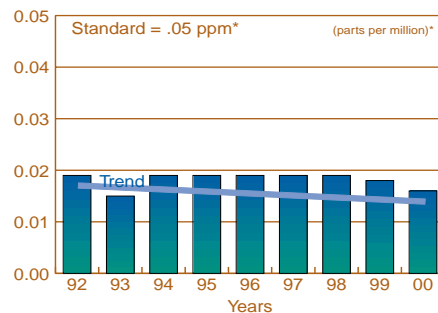
The department monitors air concentrations of the six criteria pollutants at selected locations throughout the state. Most areas of the state are in **attainment** of the air standards.

The graphs below are representative of general trends of ambient air data from four pollutants CO, NO_x, SO_x and PM₁₀. Please see Major Air Pollutants on Page 9 for more information on sources of these pollutants

Air Quality Trends at Selected Locations

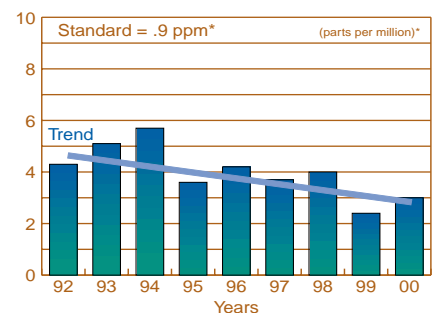
NITROGEN DIOXIDE ANNUAL MEAN, ppm

South Lindbergh, Affton 1992-2000



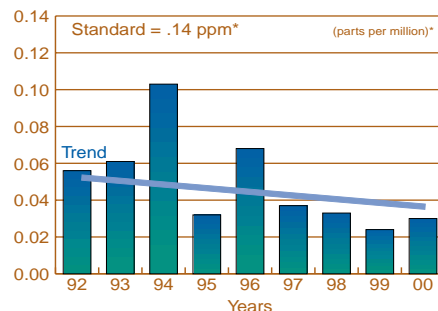
CARBON MONOXIDE 2nd 8-hr MAX, ppm

St. Charles Rock Road, St. Ann 1992-2000



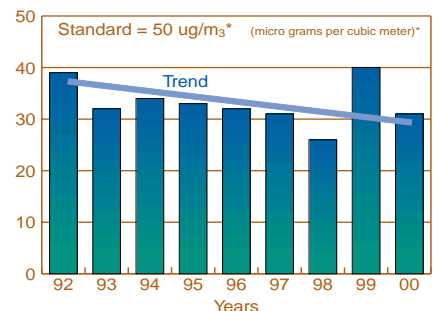
SULFUR DIOXIDE 2nd 24-hr MAX, ppm

South Charleston, Springfield 1992-2000



PM10 ANNUAL MEAN, ppm

St. Joseph, Missouri 1992-2000



and their health effects. The overall trend as shown by the four graphs at left is improved air quality.

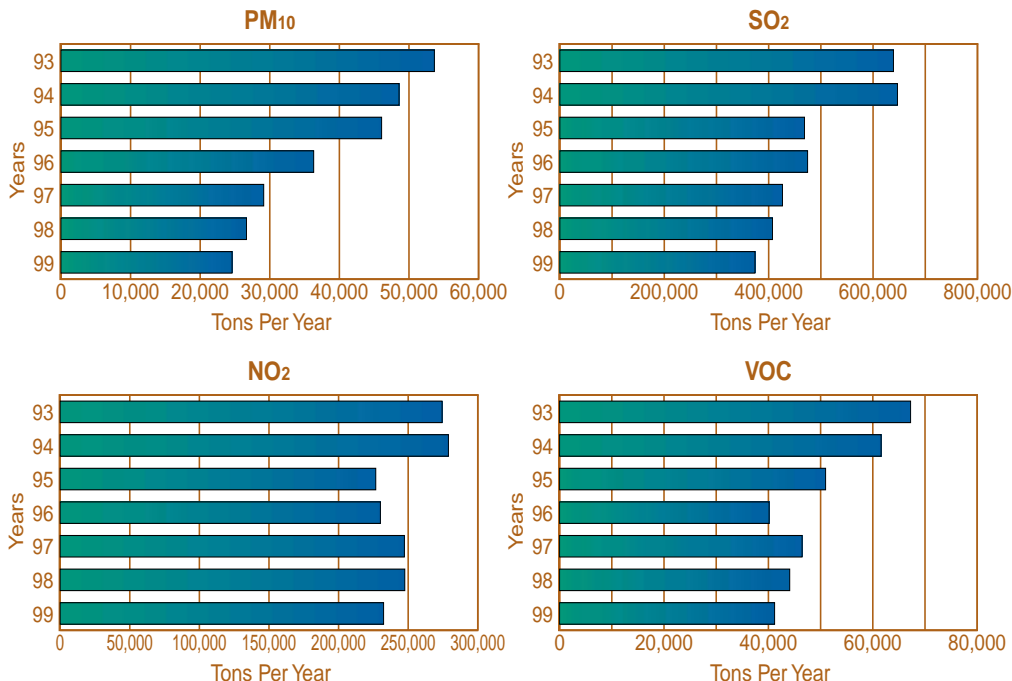
Emission Trends

In 1999, Missouri expanded its emission inventory submittal to the U.S. EPA to add area and mobile sources to the point source information. Area sources are the smaller businesses and local and regional activities such as pesticide applications, highway painting and open burning. On-road mobile sources encompass passenger and commercial vehicles, while off-road mobile sources include construction equipment, motorized recreation vehicles and small machines like lawnmowers.

The graphs at right show the total emissions of the criteria pollutants that Missouri facilities reported for the years 1993 to 1999. As reflected in the graphs, facilities have generally reported decreased emissions. Since 1993, facilities have reduced **PM₁₀** emissions 54 percent, while **VOC** emissions have dropped 39 percent. **Sulfur oxide** emissions dropped 42 percent since 1993. Industries have also reported a 15 percent decline in the emission of **NO_x** since 1993.

NO_x emissions are expected to continue to decline between now and the year 2007. The U.S. EPA's **NO_x State Implementation Plan (SIP)** call, if promulgated for Missouri, will require a reduction in **NO_x** emissions of approximately 35 percent from the eastern one-third of Missouri. Missouri has a statewide **NO_x** rule that will achieve slightly more emission reductions from electrical generating units in the entire state. The tables at right show relative contributions from major industrial sources.

Annual Reported Emissions



Top Point Emission Sources for NO _x	Tons of NO _x contributed by these sources in 1999	Percent of total
(1) Electricity Generation	191,835.58	82.5%
(2) Cement Production	16,416.80	7.1%
(3) Lime Production	4,159.20	1.8%
(4) Oil and Gas Pipelines	3,826.30	1.6%
(5) All Others	16,184.25	7.0%
Total:	232,422.13	
Top Point Emission Sources for PM ₁₀	Tons of PM ₁₀ contributed by these sources in 1999	Percent of total
(1) Electricity Generation	5,269.71	21.4%
(2) Charcoal Production	3,239.24	13.1%
(3) Cement Production	2,549.97	10.3%
(4) Lime Production	2,125.12	8.6%
(5) Sand and Gravel Processing	1,885.36	7.6%
(6) All Others	9,590.81	38.9%
Total:	24,660.21	
Top Point Emission Sources for VOCs	Tons of VOCs contributed by these sources in 1999	Percent of total
(1) Charcoal Production	7,473.69	18.1%
(2) Motor Vehicle Production and Auto Body Finishing	3,891.80	9.4%
(3) Aluminum Foil Production	2,394.11	5.8%
(4) Cement Production	2,098.50	5.1%
(5) Plastics Production	1,786.39	4.3%
(6) Automobiles Production	1,744.11	4.2%
(7) Electricity Generation	1,501.01	3.6%
(8) All Others	20,479.26	49.5%
Total:	41,359.87	